

Name: _____

Unit 3: Functions & Linear Equations

Date: _____ Bell: _____

Homework 1: Relations & Functions

** This is a 3-page document! **

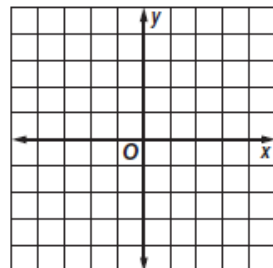
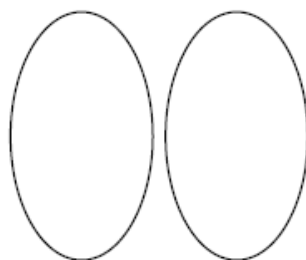
Find the domain and range, then represent as a table, mapping, and graph.

1. $\{(-5, 4), (-4, -1), (-2, 1), (0, 4), (1, 3)\}$

Domain = _____

Range = _____

x	y

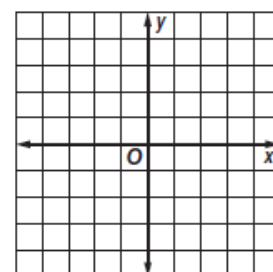
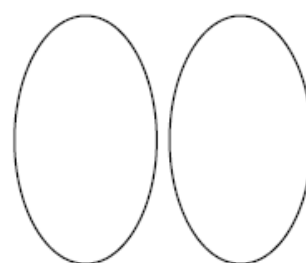


2. $\{(-3, -4), (-1, 2), (0, 0), (-3, 5), (2, 4)\}$

Domain = _____

Range = _____

x	y



Determine which of the following relations could represent functions.

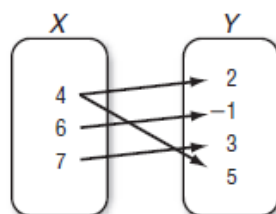
11. $\{(-2, 6), (2, 0), (3, 6), (4, -1), (5, 3)\}$

13. $\{(-3, 2), (-2, 2), (1, 2), (-3, 1), (0, 3)\}$

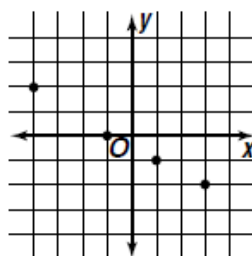
14.

x	y
2	-3
-1	0
5	5
3	2
2	1

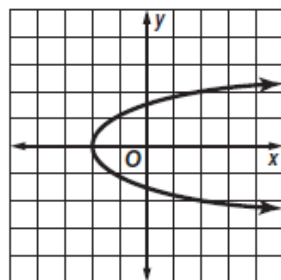
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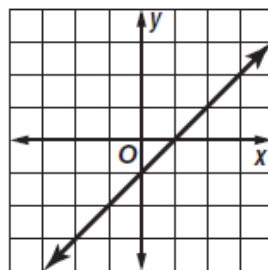
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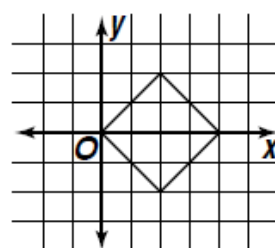
17.



18.



19.



Directions: Evaluate each function.

5. Given $f(x) = -3x - 2$, find $f(3)$

6. Given $h(x) = x^2 - 5x + 7$, find $h(-5)$

7. Given $g(x) = \frac{1}{2}x + 5$, find $g(-10)$

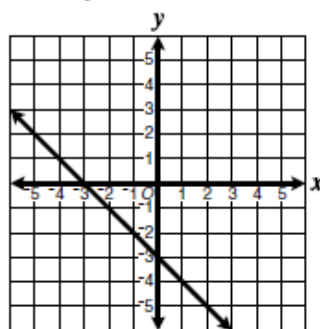
8. Given $f(x) = 1 - \frac{3}{4}x$, find $f(-12)$

9. Given $g(x) = -x^2 + 10x - 3$, find $g(9)$

10. Given $h(x) = |4 - 7x|$, find $h(8)$

11. Given $f(x) = \frac{9}{5}x + 32$, find $f(25)$

12. The following represents the graph of a function $f(x)$. Find each of the following.



a. $f(-4)$

b. $f(2)$

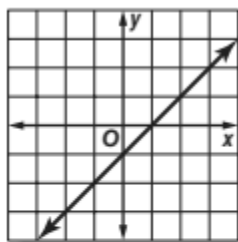
c. $f(0)$

3. Find the range of the function $y = 7x - 1$ when the domain is $\{-1, 0, 1\}$

4. Find the range of the function $y = 5 - \frac{1}{2}x$ when the domain is $\{-2, 0, 2, 4\}$

Determine the domain and range of the following graphs.

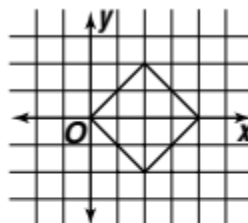
5.



Domain = _____

Range = _____

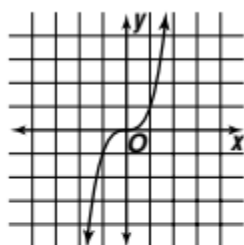
6.



Domain = _____

Range = _____

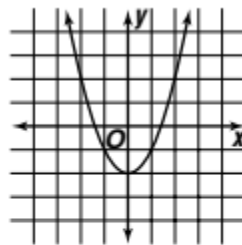
7.



Domain = _____

Range = _____

8.



Domain = _____

Range = _____

